

CLAIMS

It is claimed:

1. A computer-implemented multimedia content authoring system for managing a plurality of different types of multimedia assets, comprising:
 - an asset content storage unit that stores representations of the assets;
 - an asset metadata storage unit that stores metadata about the stored asset representations; and
 - an asset manager module connected to the asset content storage unit and to the asset metadata storage unit, said asset manager module providing to a developer a computer-human interface to the asset metadata in order to locate at least one asset representation for inclusion into a multimedia application.
2. The system of claim 1 wherein the assets representing an abstraction of asset representations, asset attributes and asset values, wherein groups of assets are formed based upon an aggregation factor, said groups are stored in the asset metadata storage unit for use by the developer in generating the multimedia application.
3. The system of claim 2 wherein the aggregation factor is type of asset.
4. The system of claim 1 wherein a first asset of the assets may be associated with a plurality of asset representations.

5. The system of claim 4 wherein the asset representations are different file formats for the first asset.

6. The system of claim 4 further comprising:

a deployment manager module connected to the asset content storage unit and to the asset metadata storage unit that indicates different computer servers to handle different content based upon asset types.

7. The system of claim 1 wherein a user-defined attribute is associated with an asset and stored in the asset metadata storage unit.

8. The system of claim 1 wherein assets represent an abstraction of asset representations, asset attributes and asset values,

wherein a new asset type is created based upon a preexisting asset type, wherein assets of the new asset type inherit properties from the preexisting asset type.

9. The system of claim 1 further comprising:

a template editor for constructing a template based upon the assets, said template editor allowing run-time behavior of assets on a template to be synchronized.

10. The system of claim 9 further comprising:

a first computer system containing the asset manager module, the template editor, application manager means, project manager means, and deployment manager means; and

a user computer that over a data connection has access to the asset manager module, the template editor, application manager means, project manager means, and deployment manager means on the server computer system, whereby an application service (ASP) providing model is achieved through said network access.

11. The system of claim 9 further comprising:

a user computer that contains at least one program selected from the group consisting of the asset manager module, the template editor, application manager means, project manager means, and deployment manager means; and

a server computer system connected to the user computer through a data connection to provide access for the user computer's program to the asset content storage unit and the asset metadata storage unit.

12. A computer-implemented method for managing and presenting multimedia content

comprising the steps of:

creating a presentation template;

selecting at least one media asset for inclusion within the template;

positioning the selected media asset within the template in order to create the multimedia content;

providing the multimedia content to a viewing device during run-time; and

sending a command to the viewing device that alters a design-time property of the multimedia content during the run-time, whereby the multimedia content with the altered design-time property is displayed to a user.

13. The method of claim 12 wherein the viewing device is a computer with a computer display.

14. The method of claim 12 wherein the viewing device is a device selected from the group consisting of a computer display, set-top box, personal data assistant, and a wearable computer.

15. The method of claim 12 wherein the altered design-time property is a font property of text shown in the multimedia content.

16. The method of claim 12 further comprising the steps of:

streaming video data to the viewing device; and

injecting an event into the streamed video data in order to alter the design-time property of the multimedia content during run-time.

17. The method of claim 16 wherein the video data is streamed using a user datagram protocol (UDP), and the injected event is sent to the viewing device using the transmission control protocol (TCP).

18. A computer-implemented method for presenting multimedia content comprising the steps of:

selecting at least two multimedia assets for inclusion into a multimedia

application;

during design-time, modifying run-time behavior characteristics of one of the assets to be synchronized with the run-time behavior characteristics of another selected asset;

providing the multimedia application to a viewing device; and

presenting the selected assets such that their presentation is synchronized with respect to each other.

19. The method of claim 18 wherein the assets are synchronized based upon a presentation timing factor.

20. The method of claim 18 wherein the assets are synchronized based upon a predetermined event occurring.

21. The method of claim 20 wherein the predetermined event includes a clicking event involving one of the assets.

22. A computer-implemented method for preparing multimedia content for presentation through a viewing device, comprising the steps of:

receiving from the viewing device a presentation-related request for the content;
determining operational characteristics associated with the viewing device;
selecting which presentation-related instructions are to be transmitted as part of the content to the viewing device based upon the determined operational characteristics; and
transmitting to the viewing device the selected instructions that are part of the requested content.

23. The method of claim 22 wherein the presentation-related request is a request for a web page that is to contain instructions on how content is to be displayed through the viewing device.

24. The method of claim 22 wherein the operational characteristics associated with the viewing device include the hardware display characteristics.

25. The method of claim 22 wherein the operational characteristics associated with the viewing device include the processes operational on the viewing device.

26. The method of claim 22 wherein the operational characteristics associated with the viewing device include the connection characteristics between the viewing device and a server that is servicing the presentation-related request.

27. The method of claim 22 further comprising the steps of:

storing an application in a markup language format;

retrieving the application in the markup language format in response to the presentation-related request; and

generating the presentation-related instructions from the markup language format of the application and determining which presentation-related instructions to transmit to the viewing device based upon the determined operational characteristics.

28. The method of claim 27 wherein the markup language format is an eXtensible Markup Language (XML).